

SEQUENCE LISTING

<110> Bayer BioScience N.V.
 Greet, Vanderkimpfen
 Gerben, Van Eldik
 Frank, Meulewaeter

<120> Corn root preferential promoters and uses thereof

<130> 021565-119

<150> US 60/399383

<151> 2002-07-31

<160> 32

<170> PatentIn version 3.0

<210> 1

<211> 378

<212> DNA

<213> Zea mays

<220>

<221> misc_feature

<222> (1)..(338)

<223> promoter

<220>

<221> misc_feature

<222> (339)..(370)

<223> 5' UTR

<400> 1

tactacagat aacacgacag ttaacgagcg ggtatgggtt gttttccttg agcactgttg	60
ttctctagaa tctctgaatc tctctctgtc ttgatgacac cgagcggaaa tagcagttgg	120
aagaggtgat tgggcttcag cgcgcgatcc aaccaagtg ggtccacaa cgtgaacctc	180
atgcagctta aaatacagcc agttgtgac catctgccac agctgtttct acctcagatg	240
tgctacacag tgtattacct gttctacct cgcagatgtg ctacacagtt gcttatgact	300
gcctataaaa tggccgggat cggtgaggct gctggaacca aggagagaga gcatatatat	360
ccaccgatcc atggcatg	378

<210> 2

<211> 1236

<212> DNA

<213> Zea mays

<220>

<221> misc_feature

<222> (11)..(1196)

<223> promoter

<220>

<221> misc_feature

<222> (1197)..(1228)

<223> 5' UTR

<400> 2

```

cgggatcccg gctttctgca ctggacgtag tgtactttat acttgaaact tgtataaatt    60
tgtgtctttt atactccctc agtttgaat atagtctttt ctgcctctt tttttccgtc    120
cacactcatt tgaatgataa taaatataga tatacataca aactatattc ataggttaat    180
taataaatgt atatttagtc taaaatgaaa tatattttac ccatcgtatt ccttatgcat    240
gaaatgttga tctacttgtc tgatggaaaa atactatgac gttgttgtag cagaccgcac    300
ctaaatcaaa ctgttttcag agatggccat tctattattg tagatttttg atacgtacga    360
tgtacttttt tatccataaa ataccgtacc attatgatat ggatatcttg atgagaggga    420
ctcattatct ctctctatat atataaacac ctatatatca aacaggcatc aagaaaaata    480
gatgattttt ttttctgaag tagagtgaca gaagcagctg aagtgtgagt ctttttgttt    540
caattttata atgtgtaaag aaaatgacgc caatgaaata tgtgtctggg ctgacgtgtt    600
gtttggtgaa agccaatttt gttgtatata ggggggccag agcccagttg tatttgttgc    660
ccggactggc gccaaaaaaa aaaatccgga tagtactatt ccgctaactg tgtcacactt    720
tatctaaat tagtcatcca aattaaagaa ctaaccttag atacaaaaaa ttaaacaag    780
tatgacaagt taggtagcaa actaaactaa agaggataac acaacagtta accgtcgacg    840
tgcgcggcct gaatttacta ctacagataa cagcacagtt aacgagcggg tatgggttgt    900
tttccttgag cactgttggt ctctagaatc tctgaatctc tctctgtctt gatgacaccg    960
agcggaaata gcagttggaa gaggtgattg ggcttcagcg cgcgatcca cccaagtggg   1020
ttccacaacg tgaacctcat gcagcttaaa atacagccag ttgtgatcca tctgccacag   1080
ctgtttctac ctcatgtg ctacacagtg tattacctgt ttctacctcg cagatgtgct   1140
acacagttgc ttatgactgc ctataaatg gccgggatcg gtgaggctgc tggaaccaag   1200
gagagagagc atatatatcc accgatccat ggcattg                               1236

```

<210> 3

<211> 592

<212> DNA

<213> Artificial

<220>

<223> cDNA of GL4 transcript

<220>

<221> misc_feature

<222> (540)..(540)

<223> n at position 540 represents any nucleotide

<400> 3

```

caaggagaga gagcatatat atccaccgat catgatgaag ggtggcagca agaaggaagt    60
ggccggtgcg gcggcggtgg tggccatact gctggttctg cagctgatgg cagctccacc    120
gacggccatg gccgcccgtc cgccgcgcgg agccgtgccg gatggctccc tcgccacgac    180
gccaaggtg acgatgctgt cagccacgct gtgctacacg ggggagacat gcaaatacat    240
tacctgcctc actcctgctt gtcctgttaa ctatgatgat cgtcgtgct acatcatatt    300
tactctgct gctgcttgag gccattctgt gtacgtgaat gaagccacta ctactctcac    360
acagcatgcg ccggccgacg acgtgcgtac gtatatatat acgtcttacc tcgtgagctt    420
ttgttcgagt gatacgtgtt tcaaggcatc catccatcca tggatgctta tgtacgtata    480
tgtgttagtc gtgtgtcagg caaccgggca gcagaagggg gtgttgtatt atatatattn    540
acgtcttctg gtgattaaat aataaagggg ggcattgttg atgtgtgcaa aa          592

```

<210> 4

<211> 95

<212> PRT

<213> Zea mays

<400> 4

```

Met Met Lys Gly Gly Ser Lys Lys Glu Val Ala Gly Ala Ala Ala Val
1           5           10           15

Val Ala Ile Leu Leu Val Leu Gln Leu Met Ala Ala Pro Pro Thr Ala
          20           25           30

Met Ala Ala Arg Ser Pro Arg Gly Ala Val Pro Asp Gly Ser Leu Ala
          35           40           45

Thr Thr Pro Lys Val Thr Met Leu Ser Ala Thr Leu Cys Tyr Thr Gly
          50           55           60

Glu Thr Cys Lys Tyr Ile Thr Cys Leu Thr Pro Ala Cys Ser Cys Asn
65           70           75           80

Tyr Asp Asp Arg Arg Cys Tyr Ile Ile Phe Thr Pro Ala Ala Ala
          85           90           95

```

<210> 5

<211> 535

<212> DNA

<213> Artificial

<220>

<223> cDNA of GL5 transcript

<220>

<221> misc_feature

<222> (82)..(82)

<223> n represents any nucleotide

<400> 5

```

ccaatcagat agagagcata gtcgatcatg aagggtggca agaagaaagt ggccggtgcg      60
gtggtggcca tactgctggt tntgcagctc atggcagctc caccgacggc catggccgcc      120
cgctcgccgc gcggagccgt gccggatggc tccctcgcca cgacgcccac ggtgacgatg      180
ctgtcgggcca cgctgtgcta cacgggggag acatgcaa atattggctg cctcactcct      240
gcttgctcct gcaactatag tgatcgtcta tgctacatca tatttactcc tgttgcttga      300
ggccattccg cgaagccaca actcttaca tatgcatgcg ccggccgacg acgacgcgcg      360
ctgcctctcg tgagcttctg ttcaagtgat gcatgtttca aggcattcat ggatgcttta      420
cgtatatgcg tattaaltag ccgtgtcagg gaaccggaca gaagggggtg ttgtttata      480
tttacgtctt ctggtgatca aataaagggg aaatatatgt tggatgtgtg caaaa      535

```

<210> 6

<211> 90

<212> PRT

<213> Zea mays

<400> 6

```

Met Lys Gly Gly Lys Lys Glu Val Ala Gly Ala Val Val Ala Ile Leu
1           5           10           15
Leu Val Leu Gln Leu Met Ala Ala Pro Pro Thr Ala Met Ala Ala Arg
20          25          30
Ser Pro Arg Gly Ala Val Pro Asp Gly Ser Leu Ala Thr Thr Pro Lys
35          40          45
Val Thr Met Leu Ser Ala Thr Leu Cys Tyr Thr Gly Glu Thr Cys Lys
50          55          60
Tyr Ile Gly Cys Leu Thr Pro Ala Cys Ser Cys Asn Tyr Ser Asp Arg
65          70          75          80
Leu Cys Tyr Ile Ile Phe Thr Pro Val Ala
85          90

```

<210> 7

<211> 24

<212> DNA

<213> Artificial

<220>

<223> oligonucleotide primer GVK27

<400> 7

gctgacagca tcgtcacctt ggc

24

<210> 8

<211> 25

<212> DNA

<213> Artificial

<220>

<223> oligonucleotide primer GVK28

<400> 8

gctgcagaac cagcagtatg gccac

25

<210> 9

<211> 27

<212> DNA

<213> Artificial

<220>

<223> oligonucleotide primer GVK29

<400> 9

catgccatgg atcgggtggat atatatg

27

<210> 10

<211> 25

<212> DNA

<213> Artificial

<220>

<223> oligonucleotide primer GVK30

<400> 10

catgccatgg atcgactatg ctctc

25

<210> 11

<211> 164

<212> DNA

<213> Artificial

<220>

<223> cDNA of 3' end of the GL12 transcript

<220>

<221> misc_feature

<222> (45)..(45)

<223> n= any nucleotide

<220>
 <221> misc_feature
 <222> (53)..(53)
 <223> n= any nucleotide

<220>
 <221> misc_feature
 <222> (57)..(57)
 <223> n= any nucleotide

<220>
 <221> misc_feature
 <222> (59)..(59)
 <223> n= any nucleotide

<220>
 <221> misc_feature
 <222> (61)..(61)
 <223> n= any nucleotide

<220>
 <221> misc_feature
 <222> (88)..(88)
 <223> n= any nucleotide

<220>
 <221> misc_feature
 <222> (93)..(93)
 <223> n= any nucleotide

<220>
 <221> misc_feature
 <222> (96)..(96)
 <223> n= any nucleotide

<220>
 <221> misc_feature
 <222> (126)..(126)
 <223> n= any nucleotide

<220>
 <221> misc_feature
 <222> (157)..(157)
 <223> n= any nucleotide

<400> 11
 ttttacacac atccaacatg ccccccttta ttatttaatc accanaagac gtnaatntnt 60
 nttattcaac accccctttt gctgcccngg tgnctnacac accactaaca catttccgtt 120
 cataancatt catgctgggc cgcgctgtgc ccgacancctt aaac 164

<210> 12
 <211> 8514
 <212> DNA
 <213> Artificial

<220>
 <223> plasmid pTWV011

<220>
 <221> misc_feature
 <222> (52)..(1)
 <223> LB= left T-DNA border

<220>
 <221> misc_feature
 <222> (318)..(58)
 <223> 3' nos

<220>
 <221> misc_feature
 <222> (888)..(337)
 <223> coding region of the bar gene

<220>
 <221> misc_feature
 <222> (1721)..(889)
 <223> 35S promoter

<220>
 <221> misc_feature
 <222> (1991)..(1767)
 <223> 3' end 35S

<220>
 <221> misc_feature
 <222> (4511)..(2003)
 <223> coding region ispla

<220>
 <221> misc_feature
 <222> (4546)..(4515)
 <223> leader sequence from the corn GL4 transcript

<220>
 <221> misc_feature
 <222> (5732)..(4547)
 <223> corn preferential promoter GL4

<220>
 <221> misc_feature
 <222> (5989)..(5765)
 <223> 3' end 35S

<220>
 <221> misc_feature
 <222> (7228)..(6001)
 <223> isp2a coding region

<220>
 <221> misc_feature

<222> (7263)..(7232)
 <223> leader sequence of the GL4 transcript

<220>
 <221> misc_feature
 <222> (8449)..(7264)
 <223> corn root preferential promoter GL4

<220>
 <221> misc_feature
 <222> (8514)..(8490)
 <223> RB=right T-DNA border

<400> 12
 cggcaggata tattcaattg taaatggctc catggcgatc gctctagagg atcttcccga 60
 tctagtaaca tagatgacac cgcgcgcat aatttatcct agtttgcgcg ctatatattg 120
 ttttctatcg cgtattaaat gtataattgc gggactctaa tcataaaaac ccattctcata 180
 aataacgtca tgcattacat gttaattatt acatgcttaa cgtaattcaa cagaaattat 240
 atgataatca tcgcaagacc ggcaacagga ttcaatctta agaaacttta ttgccaaatg 300
 tttgaacgat ctgcttcgga tcctagacgc gtgagatcag atctcgggtga cgggcaggac 360
 cggacggggc ggtaccggca ggctgaagtc cagctgccag aaaccacgt catgccagtt 420
 cccgtgcttg aagccggccg cccgcagcat gccgcggggg gcataatccga gcgcctcgtg 480
 catgcgacg ctcgggtcgt tgggcagccc gatgacagcg accacgctct tgaagccctg 540
 tgcctccagg gacttcagca ggtgggtgta gagcgtggag cccagtcccg tccgctggtg 600
 gcggggggag acgtacacgg tcgactcggc cgtccagtcg taggcgttgc gtgccttcca 660
 ggggcccgcg taggcgatgc cggcgacctc gccgtccacc tcggcgacga gccagggata 720
 gcgctcccgc agacggacga ggtcgtccgt ccaactcctgc ggttcctgcg gctcggtagc 780
 gaagttgacc gtgcttgctt cgatgtagtg gttgacgatg gtgcagaccg ccggcatgtc 840
 cgcctcggtg gcacggcgga tgtcggcccg gcgtcgttct ggggccatgg ttatagagag 900
 agagatagat ttatagagag agactggtga ttacagcgtg tcctctccaa atgaaatgaa 960
 cttccttata tagaggaagg gtcttgcgaa ggatagtggg attgtgcgtc atcccttacg 1020
 tcagtggaga tgtcacatca atccacttc tttgaagacg tggttggaac gtcttctttt 1080
 tccacgatgc tcctcgtggg tgggggtcca tctttgggac cactgtcggc agaggcatct 1140
 tgaatgatag cttttcttt atcgcaatga tggcatttgt aggagccacc ttccttttct 1200
 actgtccttt cgatgaagt acagatagct gggcaatgga atccgaggag gtttcccga 1260
 attatccttt gttgaaaagt ctcaatagcc ctttggctt ctgagactgt atctttgaca 1320

tttttggagt agaccagagt gtcgtgctcc accatgttga cgaagatttt cttcttgtca 1380
 ttgagtcgta aaagactctg tatgaactgt tcgccagtct tcacggcgag ttctgttaga 1440
 tcctcgattt gaatcttaga ctccatgcat ggccttagat tcagtaggaa ctaccttttt 1500
 agagactcca atctctatta cttgccttgg tttatgaagc aagccttgaa tcgtccatac 1560
 tggaatagta cttctgatct tgagaaatat gtctttctct gtgttcttga tgcaattagt 1620
 cctgaatctt ttgactgcat ctttaacctt cttgggaagg tatttgatct cctggagatt 1680
 gttactcggg tagatcgtct tgatgagacc tgctgcgtag gaacgcggcc gcgtatacgt 1740
 atcgatatct tcgaattcat atgcatgac tggaatttag tactggattt tggttttagg 1800
 aattagaaat ttattgata gaagtatttt acaaatacaa atacatacta agggtttctt 1860
 atatgctcaa cacatgagcg aaacctata ggaaccetaa ttcccttatac tgggaactac 1920
 tcacacatta ttatggagaa aatagagaga gatagatttg tagagagaga ctggtgattt 1980
 cagcgtgtcc aagcttgcta gcctcagtc acagcgaaga tcctcaccac agcggtcctg 2040
 gtggagcccc acaggctgct cttgcaggac aggggtgaca ggaaggacct gtcggacttc 2100
 acgttcttga agtccagggt gatcctgtta gcgttcttgc cggaaaccgga gtccagcacg 2160
 gtcttggctc gtcaccgat cacctttag gtgaaggaga aggtacctgg ggtctgggta 2220
 atcagtgggg agtcgatgaa gtaggtagcg tcgtggtact tcacggccag tgggtcaccg 2280
 aagaagtcga agtcaccctc gatgatgtcg aactgtggca ctgggtcctt gtactcgatc 2340
 tcctcagcac ccacctccac gaaggacacg tcgtcccagt acacgttgggt ctggccgtca 2400
 cccttgatgg agatggtgtt gatctcgttg ccctccaggt ttggcaccag gatgttgatc 2460
 ctctggtaac ccacgtggc cagggatgat ttgtcggta cgatggactc ctgcttaccg 2520
 tcgatctcga tgtccacgga caccttgag tcagccttca tgtacaggga cacgtagtag 2580
 tcgatgttct tcttcagctt gttcttggac tcggtggaca gtcgggtgaa agcacccttg 2640
 ttagcggacc tgtactgctt cttaccggtg ttaccaccgt tcaccacgta ggtgtagtac 2700
 cagttgccga tcttgggtgt gtcggactca ccaccgtcgt acaggggtgga ggtctttatt 2760
 gtgaagttca tcttcggttc gagcttcacg tcgtacaggt tcttcacgtc cttgaaggaa 2820
 ccggtggagt cgttcagctg cttcctgatc tgcttagcgg tgtactcgtc cacgtaggac 2880
 tgcacggaag cctcgaagat cggctggtcg ttgtagaaca gcaggccgtc cttctcctcg 2940
 atctcgtctg ggtaggccag cttcagggcc tccttcacgg ataaatttgg ggtcttgtcc 3000

tctgggttg tgtagtcctt agcagccacc ctcttctcgg acatctggtt gccgttgctg 3060
 accgatgatgc tggcggctctt ggcggagatc tcgtcgggtga tgccgttcca gtcaccagcg 3120
 atggtgatgt tgccgttggt gtccttgatg gcgtacttgc cctccacctg gtcggtttcg 3180
 agcaggatcg gcttcttggt ggacaggtag gtgttcagct gtccttggtt cagtgggatc 3240
 ggcctggagt tgaagtcgtc catcgtgttg atggcgatgc cgttcttgcc ctctctctggg 3300
 taggactggt ctggcaggat ggtcagagcg gtggtgttct ccttggcctt gatggtgccg 3360
 atggtggtgc cgtccaggat gaaggagggtg gttggcttgg tctcgtagat agcaccggtg 3420
 cccacgttgt tgtacctcac gttggcggtc aggtaggcgg actcagcacc gttgatgtgg 3480
 gtgccgtcgt tgggtggcga gcccactcg ttggccacgg tctcggagtg ctggtagtcc 3540
 acggacacgc cgaaggatgg acccagaccg gaccaaccag cggtcacgtt cacgccctcg 3600
 gtgttggtgt aggaccagtt ggtggactgg gaggactcca cggagtggga caggctctcg 3660
 ttcttgaca ggatcacctt ttcgaggac acgttcacgg atgggaaagc agccaccagt 3720
 ggggtgaagg tctccttggc gttggacagt ggcattgtccc tagcagcctt ctcgtagtgc 3780
 gagtatgggt cgtccacggt gtgggcttcg agtgggttgc tgggaactt ctggtagccc 3840
 ttggaggcca gggagtcgtc ccacttcacg gccaccttgt tctggatggt gtagccgttc 3900
 tcctcccaca cgtccgggat ggagtcgccg tcggtgtcgg tgcctcgtc gatgtccctc 3960
 ttggtcttct ggggaacag gttggtcttg gaggccttct tcaggaacac ctgggtctcc 4020
 ttcttggtga actctgggtt cctcagctcg tcctgtgca cctgtgga gtggttctgg 4080
 gagtcatct tgaacagctt cagctccttg aagatcttgt tgcgatgtg cagggcgtcg 4140
 tcggactggt actgatctt gatctgcacc agctggccct tttcaggtg cacggactgc 4200
 ttgttggtgc cttctcga gatcaccttg ccgtccagct cgatgatggc gttctcgtcg 4260
 tcggacagct tgaaggtaga gtcaccagtg gcggaggact ggatcaggcc gatccagcg 4320
 atggagtgtt actcctggtg cttctggtcc acgagggtgt tagcggctg ctggtcgtag 4380
 atcagggtgt tgcctcgtt tggagcgaac agggtcaggt cgttgaagtc cttgcccttg 4440
 aagtagtagc ccagcaggcc ctccctgtcg atctggttgt ccttcgaagc ctgggtggtg 4500
 gtggcgatag ccatggatcg gtggatatat atgtctctc tccttggttc cagcagcctc 4560
 accgatcccg gccattttat aggcagtcac aagcaactgt gtagcacatc tgcgaggtag 4620
 aaacaggtaa tacactgtgt agcacatctg aggtagaaac agctgtggca gatggatcac 4680
 aactggctgt attttaagct gcatgaggtt cacgttgtgg aaccacttg ggttgatcg 4740

cgcgctgaag cccaatcacc tcttccaact gctatttccg ctcggtgtca tcaagacaga 4800
 gagagattca gagattctag agaacaacag tgctcaagga aaacaaccca taccgctcg 4860
 ttaactgtcg tgttatctgt agtagtaa atcaggccgcg cacgtcgacg gttaactgtt 4920
 gtgttatcct ctttagttta gtttgctacc taacttgta tactttgttt aatittttgt 4980
 atctaagggt agttctttta tttggatgac taattttaga taaagtgtga cacagttagc 5040
 ggaatagtac tatccggtt ttttttttg gcgccagtcc gggcaacaaa tacaactggg 5100
 ctctggcccc cctatatata acaaaattgg ctttcacaa acaacacgtc agcccagaca 5160
 catatttcat tggcgctcatt ttctttacac attataaaat tgaacaaaa agactcacac 5220
 ttcagctgct tctgtcactc tacttcagaa aaaaaaatca tctatttttc ttgatgcctg 5280
 tttgatatat aggtgtttat atatataag agagataatg agtccctctc atcaagatat 5340
 ccatatcata atggtacggt attttatgga taaaaaagta catcgtagt atcacaaatc 5400
 tacaataata gaatggccat ctctgaaaac agtttgattt aggtgcggtc tggtaaca 5460
 acgtcatagt atttttccat cagacaagta gatcaacatt tcatgcataa ggaatacgt 5520
 gggtaaaata tatttcattt tagactaaat atacatttat taattaacct atgaatatag 5580
 tttgtatgta tatctatatt tattatcatt caaatgagtg tggacggaaa aaaagaggct 5640
 agaaagaact atatttcaaa ctgaggaggat ataaaagaca caaatttata caagtttcaa 5700
 gtataaagta cactacgtcc agtgcagaaa gccgggatcc ccgggctagg cgcgccatat 5760
 gcatgatctg gatttttagta ctggattttg gttttaggaa ttagaaattt tattgataga 5820
 agtattttac aaatacaaat acatactaag ggtttcttat atgctcaaca catgagcgaa 5880
 accctatagg aaccctaatt cccttatctg ggaactactc acacattatt atggagaaaa 5940
 tagagagaga tagatttgta gagagagact ggtgatttca gcgtgtccaa gcttgctagc 6000
 ctcaattggt cagcagggtg gcgtccacta cgtacctctt cacacccttg atcaccacct 6060
 cggatgatctt gtcgatgtgg tagttggagt ccttgctgat caggatctcc ttctcggaag 6120
 cgaagccacc gatagcggac aggtaggcac cagtgaacc ctttggcacc tgcagcctca 6180
 ggatgaactt cctggagccg aaagcggaca gcctctcgga ggacaggag gtggacatgt 6240
 aacccttgct ctcttcatg gtgttcagga acttctctc catctcttc agggatggca 6300
 gtgggtcgga aatctggtaa ccgaactcgg ccataccgca ccacctgtac acggtgatgt 6360
 tctctgggat cggctgctt tccagagcct cggagatgtt cttgatctgg gtgtccagct 6420

tctcgttgcc ggagccaccc tggttccgca ggtagtcggt gatctgcttg tagtcctgcc 6480
 tagcgtagcc gtccagggcc tccctctgtg ggtcggtcag gttcttagcc caaccctcgt 6540
 agttcttcat gccccacctg tgagcctcgg cgttgatgtc gttcttgaag tccagggact 6600
 tcttcagggc accctggatc tgcaggcact cgtaacctt cttcaccacc ttggagatgt 6660
 tgtccacgtg cagcacgtag ccgttgctga tcagcatctt gtactcgttg ttgttcagga 6720
 tcacaccagc cttggtcggg atggtggagc ccttgccgga tggcacggtc acttgaggga 6780
 tgatcctctc cttggaggac acgttctgag cagtcagggt ggtgtccagg taggagtcga 6840
 acttgatgtc cttgcccagg aactgctcct tgaactgggc ctgcacgtcg gtgttgatgg 6900
 tgttgccctc ggtcagtgcc ttgttaaate cgtgggtgga tggctccacg ttctttagg 6960
 tcacgatgga ggaggacagg ttggccttgt cgaacatctt gtcgatctcc ttcaggctct 7020
 tgatctcgtc ctggaaggag ccagccatgc tgaaggatgat ctctttagt ttcttcttga 7080
 tgtcgttctt gttgtccagg aaattattca tacgcgtctt ctgcgtcacg gtcagcttcc 7140
 actccttctc cttctccttg cccactcct tggccttctc cttgtcctcc ttgaagctct 7200
 cgggtgtgtt ggtggtcttc actagtcca tggatcgggt gatataatg ctctctctcc 7260
 ttggttccag cagcctcacc gatcccgcc attttatagg cagtcataag caactgtgta 7320
 gcacatctgc gaggtagaaa caggaatac actgtgtagc acatctgagg tagaaacagc 7380
 tgtggcagat ggatcacaac tggctgtatt ttaagctgca tgaggttcac gttgtggaac 7440
 ccacttgggt tggatcgccg gctgaagccc aatcacctct tccaactgct atttccgctc 7500
 ggtgtcatca agacagagag agattcagag attctagaga acaacagtgc tcaaggaaaa 7560
 caaccatac ccgctcgta actgtcgtgt tatctgtagt agtaaattca ggccgcgcac 7620
 gtcgacgggt aactgttggt ttatcctctt tagtttagtt tgctacctaa cttgtcatac 7680
 tttgtttaat ttttgtatc taaggtagt tctttaattt ggatgactaa ttttagataa 7740
 agtgtgacac agttagcggg atagtactat ccggattttt ttttttggcg ccagtccggg 7800
 caacaaatac aactgggctc tggcccccct atatacaaca aaattggctt tcaccaaaaa 7860
 acacgtcagc ccagacacat atttcattgg cgtcattttc tttacacatt ataaaattga 7920
 aacaaaaaga ctacacttc agctgcttct gtcactctac ttcagaaaaa aaaatcatct 7980
 atttttcttg atgcctgttt gatataatg tgtttatata tatagagaga gataatgagt 8040
 ccctctcatc aagatatcca tatcataatg gtacgggtatt ttatggataa aaaagtacat 8100
 cgtacgtatc acaaatctac aataatagaa tggccatctc tgaaaacagt ttgatttagg 8160

tgcggtctgg tacaacaacg tcatagtatt ttccatcag acaagtagat caacatttca 8220
 tgcataagga atacgatggg taaaatatat ttcatcttag actaaatata catttattaa 8280
 ttaacctatg aatatagttt gtatgtatat ctatatttat tatcattcaa atgagtgtgg 8340
 acggaaaaaa agaggctaga aagaactata tttcaactg agggagtata aaagacacaa 8400
 atttatacaa gtttcaagta taaagtacac tacgtccagt gcagaaagcc gggatccccg 8460
 ggcaggcctg caggctgacg gccgagtact ggcaggatat ataccgttgt aatt 8514

<210> 13
 <211> 8692
 <212> DNA
 <213> Artificial

<220>
 <223> plasmid pTW018 T-DNA sequence

<220>
 <221> misc_feature
 <222> (25)..(1)
 <223> LB= left border region (complement)

<220>
 <221> misc_feature
 <222> (318)..(58)
 <223> 3' nos (complement)

<220>
 <221> misc_feature
 <222> (888)..(337)
 <223> coding region of the bar gene (complement)

<220>
 <221> misc_feature
 <222> (1721)..(889)
 <223> 35S promoter (complement)

<220>
 <221> misc_feature
 <222> (1991)..(1767)
 <223> 3' 35S (complement)

<220>
 <221> misc_feature
 <222> (4511)..(2003)
 <223> coding region ispla (complement)

<220>
 <221> misc_feature
 <222> (4542)..(4518)
 <223> leader sequence from the corn GL5 transcript (complement)

<220>
 <221> misc_feature
 <222> (5822)..(4543)
 <223> GL5 promoter (complement)

<220>
 <221> misc_feature
 <222> (6078)..(5854)
 <223> 3' 35S (complement)

<220>
 <221> misc_feature
 <222> (7317)..(6090)
 <223> isp2a coding region (complement)

<220>
 <221> misc_feature
 <222> (7348)..(7324)
 <223> leader sequence of the corn GL5 transcript (complement)

<220>
 <221> misc_feature
 <222> (8628)..(7349)
 <223> promoter of the corn GL5 transcript (complement)

<220>
 <221> misc_feature
 <222> (8692)..(8668)
 <223> Right T-DNA border (complement)

<220>
 <221> misc_feature
 <222> (5630)..(5630)
 <223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (8436)..(8436)
 <223> n=any nucleotide

<400> 13
 cggcaggata tattcaattg taaatggctc catggcgatc gctctagagg atcttcccga 60
 tctagtaaca tagatgacac cgcgcgcgat aatttatcct agtttgcgcg ctatatTTTg 120
 ttttctatcg cgtattaaat gtataattgc gggactctaa tcataaaaac ccatctcata 180
 aataacgtca tgcattacat gttaattatt acatgcttaa cgtaattcaa cagaaattat 240
 atgataatca tcgcaagacc ggcaacagga ttcaatctta agaaacttta ttgccaaatg 300
 tttgaacgat ctgcttcgga tcctagacgc gtgagatcag atctcgggtga cgggcaggac 360
 cggacggggc ggtaccggca ggctgaagtc cagctgccag aaaccacgt catgccagtt 420
 cccgtgcttg aagccggccg cccgcagcat gccgcggggg gcatatccga gcgcctcgtg 480

catgcgcacg ctccgggtcgt tgggcagccc gatgacagcg accacgctct tgaagccctg 540
tgctccagg gacttcagca ggtgggtgta gagcgtggag cccagtcctg tccgctggtg 600
gcggggggag acgtacacgg tcgactcggc cgtccagtcg taggcgttgc gtgccttcca 660
ggggccccgc taggcgatgc cggcgacctc gccgtccacc tcggcgacga gccagggata 720
gcgctcccg agacggacga ggtcgtccgt ccactcctgc ggttcctgcg gtcggttacg 780
gaagttgacc gtgcttgtct cgatgtagt gttgacgatg gtgcagaccg ccggcatgtc 840
cgcctcgtg gcacggcga tgcggccgg gcgtcgttct gggccatgg ttatagagag 900
agagatagat ttatagagag agactggtga ttccagcgtg tcctctccaa atgaaatgaa 960
cttcttata tagaggaagg gtcttgcga ggatagtggg attgtgcgtc atcccttacg 1020
tcagtggaga tgccacatca atccactgc ttggaagac tggttggaac gtcttctttt 1080
tcacgatgc tcctcgtggg tgggggtcca tctttgggac cactgtcggc agaggcatct 1140
tgaatgatag cctttccttt atcgcaatga tggcatttgt aggagccacc ttccttttct 1200
actgtccttt cgatgaagt acagatagct gggcaatgga atccgaggag gtttccgaa 1260
attatccttt gttgaaaagt ctcaatagcc ctttggcttt ctgagactgt atctttgaca 1320
tttttgagt agaaccagat gtcgtgctcc accatgttga cgaagatctt cttctgtca 1380
ttgagtcgta aaagactctg tatgaactgt tcgccagtct tcacggcgag ttctgttaga 1440
tcctcgattt gaatcttaga ctccatgcat ggccttagat tcagtaggaa ctaccttttt 1500
agagactcca atctctatta cttgccttgg ttatgaagc aagccttgaa tcgtccatac 1560
tggaatagta ctctgatct tgagaaatat gtctttctct gtgttcttga tgcaattagt 1620
cctgaatctt ttgactgcat ctttaacctt cttgggaagg tatttgatct cctggagatt 1680
gttactcggg tagatcgtct tgatgagacc tgctgcgtag gaacgcggcc gcgtatacgt 1740
atcgatatct tcgaattcat atgcatgac tggattttag tactggattt tggttttagg 1800
aattagaaat ttattgata gaagtatttt acaaatacaa atacatacta agggtttctt 1860
atatgtcaa cacatgagcg aaacctata ggaaccctaa ttcccttacc tgggaactac 1920
tcacacatta ttatggagaa aatagagaga gatagatttg tagagagaga ctggtgattt 1980
cagcgtgtcc aagcttgcta gcctcagtc acagcgaaga tcctcaccac agcggtcctg 2040
gtggagcccc acaggtcgtc cttgcaggac aggggtgtaca ggaaggacct gtcggacttc 2100
acgttcttga agtccagggt gatcctgtta gcgttcttgc cgaaccgga gtccagcacg 2160

gtcttgggtct gctcaccgat caccttgtag gtgaaggaga aggtacctgg ggtctgggta 2220
 atcagtgggg agtcgatgaa gtaggtagcg tcgtggtact tcacggccag tgggtcaccg 2280
 aagaagtcca agtcaccctc gatgatgicg aactgtggca ctgggtcctt gtactcgatc 2340
 tcctcagcac ccacctccac gaaggacacg tcgtcccagt acacgttggg ctggccgtca 2400
 cccttgatgg agatggtggt gatctcgttg ccctccaggt ttggcaccag gatgttgatc 2460
 ctctggtaac ccacgtgggc cagggtgatg ttgtcggta cgtggactc ctgcttaccg 2520
 tcgatctcga tgtccacgga caccttgag tcagccttca tgtacaggga cacgtagtag 2580
 tcgatgttct tcttcagctt gttcttggac tcggtggaca gtcggtgaa agcacccttg 2640
 ttagcggacc tgtactgctt cttaccggtg ttaccaccgt tcaccacgta ggtgtagtac 2700
 cagttgccga tcttgggtgt gtcggactca ccaccgtcgt acagggtgga ggtctttatt 2760
 gtgaagtcca tcttcggttc gagcttcacg tcgtacaggt tcttcacgta cttgaaggaa 2820
 ccggtggagt cgttcagctg cttcctgatc tgcttagcgg tgtactcgtc cacgtaggac 2880
 tgcacggaag cctcgaagat cggctggctg ttgtagaaca gcaggccgtc cttctcctcg 2940
 atctcgtctg gtaggccag cttcagggcc tccttcacgg ataaatttgg ggtcttgctc 3000
 tctgggttgg ttagtcctt agcagccacc ctcttctcgg acatctggtt gccgttgctg 3060
 acgatgatgc tggcgtctt ggcggagatc tcgtcggta tggcgttcca gtcaccagcg 3120
 atggtgatgt tgccgttggg gtccttgatg gcgtacttgc cctccacctg gtcggtttcg 3180
 agcaggatcg gcttcttgtt ggacaggtag gtgttcagct gtccttgtt cagtgggatc 3240
 ggcctggagt tgaagtcgtc catcgtgttg atggcgatgc cgttcttgcc cttctctggg 3300
 taggactggt ctggcaggat ggtcagagcg gtggtgttct ccttggcctt gatggtgccg 3360
 atggtggtgc cgtccaggat gaaggagggtg gttggcttgg tctcgtagat agcaccggtg 3420
 cccacgttgt tgtacctcac gttggcggtc aggtaggcgg actcagcacc gttgatgtgg 3480
 gtgccgtcgt tggtagcgga gcccactcg ttggccacgg tctcggagtg ctggtagtgc 3540
 acggacacgc cgaaggatgg acccagaccg gaccaaccag cgttcacgtt cacgccctcg 3600
 gtgttggtgt aggaccagtt ggtggactgg gaggactcca cggagtggga caggtcctcg 3660
 ttcttggaca ggaacacctt ttcgaggac acgttcacgg atgggaaagc agccaccagt 3720
 gggttgaagg tctccttggc gttggacagt ggcattgtcc tagcagcctt ctcgtagtcg 3780
 gagtatgggt cgtccacggt gtgggcttcg agtgggttgc tggtagaact ctggtagccc 3840
 ttggaggcca gggagtcgtc ccacttcacg gccaccttgt tctggatggt gtagccgttc 3900

tcctcccaca cgtccgggat ggagtcgccg tcggtgtcgg tgcctcgtc gatgtccctc 3960
 ttggtcttct gggatgaacag gttggtcttg gaggccttct tcaggaacac ctgggtctcc 4020
 ttcttgttga actctgggtt cctcagctcg tctgtctgca cctgctggga gtggttcttg 4080
 gagtcgatct tgaacagctt cagctccttg aagatcttgt tgcgatgtg cagggcgtcg 4140
 tcggactggt actcgatctt gatctgcacc agctggccct tttcgagggtg cacggactgc 4200
 ttgttgttgc cttctcggga gatcaccttg ccgtccagct cgatgatggc gttctcgtcg 4260
 tcggacagct tgaagtgaa gtcaccagtg gcggaggact ggatcaggcc gatccagcgg 4320
 atggagtggg actcctggtg cttctggtcc acgagggtgt tagcggcttg ctggtcgtag 4380
 atcaggggtg tgcctctggt tggagcgaac agggtcaggt cgttgaagtc cttgcccttg 4440
 aagtagtagc ccagcaggcc ctccctgtcg atctggttgt ccttcgaagc ctgggtggtg 4500
 gtggcgatag ccatggatcg actatgctct ctatctgatt ggtttggctt tgctccagca 4560
 gccagccatt ttataggcag cagtcactaa actgtaggct gtagcacgtc tgacagacag 4620
 gtagatggat cacaactggc tgtattttaa aaagctgcac gaggttcacg ttgtgtcgtc 4680
 gtggtataga taaatgtgca tgcagcaatg gaacaatatt ggggttgatg actgaatcgc 4740
 tcaagctagc tagcccaatc atctcttcca actgctaccc gctgtgtctc ataaacacgc 4800
 aggtccagcg attctaaacc gcaacagtgc tcaacgaaaa ctacccttac ccgctggta 4860
 attattgtgt tatcatattt aaatgctgtc attttcttta caaattataa aacttgggac 4920
 gtgtttggtt cgctgcctat acttatttta tgtattggat tctatgcgca aagagcaaaa 4980
 ttccagtacc aaatgtttgt tgtattttat tgggtagcgt gtacgtcgca cattctgtaa 5040
 tacaacctcc gttcacagat atatgacatg ttgatttttt taaaaaactt tgaccattta 5100
 tcttattcaa aagtataaaa ttttaattaa gcacaaacta ccttaagtga taaaacaaac 5160
 cacacaaaaa ataaatgaca actcattatt ttttaaataa gacaagtgt taaagttttt 5220
 taaaaagtca gcgatgtcat atatttatga acggtatata tatatatata tataacaccc 5280
 atatcgagca ggcatacaaga aaaacatatc gatgattttt gttttcctaa agtagagtga 5340
 caagctaaac aaatgacata tttttgtttc agttttgtaa ggccattctc agtggtgagc 5400
 ttcagaacat gtgacatatt tttttgttt tagttttgta aggcctttct cagtggtagg 5460
 ctttagaaca agtgacatct ttttgtttca gttttgtaag gtcattctta gtggtgagct 5520
 tcagaacaag tgagatgaga tctttttgtt tcagttttgt taggccagtt tcatcggtga 5580

gcttcacaac aagtacatc ttcttttcag ttttgtaagg ccattttcan cggtagcctt 5640
 cggtagaatg ttttccatgt tgtcacacca tatttaaact aggtaattgt atatatagaa 5700
 ttttatctct atgaaactct accatctccc ataagctctt tctatatctc tgcttttaat 5760
 tgtatgtcat gtcactatgt atgatggtgt atcatcgtat ataatgagta tgaaattccg 5820
 ccaatcacta ggggctaggg gcgccatatg catgatctgg attttagtac tggattttgg 5880
 ttttaggaat tagaaatttt attgatagaa gtattttaca aatacaaata catactaagg 5940
 gtttcttata tgctcaacac atgagcgaaa ccctatagga accctaattc ccttatctgg 6000
 gaactactca cacattatta tggagaaaaat agagagagat agattttag agagagactg 6060
 gtgatttcag cgtgtccaag cttgctagcc tcacttggc agcagggtag cgtccaactac 6120
 gtacctcttc acacccttga tcaccacctc ggtgatcttg tcgatgtggt agttggagtc 6180
 cttgtcgatc aggatctcct tctcggagc gaagccaccg atagcggaca ggtaggcacc 6240
 agtggaaacc ttggcacct gcagcctcag gatgaacttc ctggagccga aagcggacag 6300
 cctctcggag gacagggagg tggacatgta acccttgtcc tccttcattg tgttcaggaa 6360
 cttctcctcc atctccttca gggatggcag tgggtcggaa atctggtaac cgaactcggc 6420
 cataccgcac cacctgtaca cggtagtgtt ctctgggac ggctgcttct ccagagcctc 6480
 ggagatgttc ttgatctggg tgtccagctt ctggttgccg gagccaccct ggttccgcag 6540
 gtagtcgttg atctgcttgt agtcctgcct agcgtagccg tcagggcct ccctctgtgg 6600
 gtcggtcagg ttcttagccc aaccctcgta gttcttcattg cccacattg gagcctcggc 6660
 gttgatgtcg ttcttgaagt ccagggactt cttcagggta ccctggatct gcaggcactc 6720
 gtaacccttc ttaccacct tggagatgtt gtccacgtgc agcacgtagc cgttgctgat 6780
 cagcatcttg tactcgttgt tgttcaggat cacaccagcc ttggtcggga tggtaggacc 6840
 cttgccggat ggcacggtca cttggaggat gatcctctcc ttggaggaca cgttctgagc 6900
 agtcagggtg gtgtccagggt aggagtcgaa cttgatgtcc ttgccaggga actgctcctt 6960
 gaactgggcc tgcacgtcgg tgttgatggt gttgccctcg gtcagtggct tgttaaacc 7020
 gatggtggat ggctccacgt tctttaggt cacgatggag gaggacaggt tggccttgtc 7080
 gaacatcttg tcgatctcct tcaggtcctt gatctcgtcc tcgaaggagc cagccatgct 7140
 gaaggatgac tcctttagt tcttcttgat gtcgttcttg ttgtccagga aattattcat 7200
 acggtcttc tcggtcacgg tcagcttcca ctcttctcc ttctcctgc cccactcctt 7260
 ggcttctcc ttgtcctct tgaagtcctc ggtgttggtg gtgtcttca ctagtccat 7320

```

ggatcgacta tgctctctat ctgattggtt tggctttgct ccagcagcca gccattttat 7380
aggcagcagt cactaaactg taggctgtag cacgtctgac agacaggtag atggatcaca 7440
actggctgta ttttaaaaag ctgcacgagg ttcacgttgt gtcgtcgtgg tatagataaa 7500
tgtgcatgca gcaatggaac aatattgggg ttgatgactg aatcgctcaa gctagctagc 7560
ccaatcatct cttccaactg ctacccgctg tgtctcataa acacgcaggt ccagcgattc 7620
taaaccgcaa cagtgtcaa cgaaaactac ccttaccgcg tggtaatta ttgtgttatc 7680
atatttaaat gctgtcattt tctttacaaa ttataaaact tgggacgtgt ttggttcgct 7740
gcctatactt attttatgta ttggattcta tgcgcaaaga gcaaaattcc agtaccaaat 7800
gtttgttgta ttttattggg tagcgtgtac gtcgcacatt ctgtaatata acctccgttc 7860
acagatatat gacatgttga tttttttaa aaactttgac catttatctt attcaaaagt 7920
ataaaat tttt aattaagcac aaactacctt aagtgataaa acaaaaccaca caaaaaataa 7980
atgacaactc attat tttttt aaataagaca agtgattaaa gttttttaa aagtcagcga 8040
tgtcatatat ttatgaacgg tatatatata tatatatata acaccatat cgagcaggca 8100
tcaagaaaaa catatcgatg atttttgttt tcctaaagta gagtgacaag ctaaacaat 8160
gacatat tttt tgtttcagtt ttgtaaggcc attctcagtg gtgagcttca gaacatgtga 8220
catat tttttt ttgttttagt tttgtaaggc ctttctcagt ggtgagcttt agaacaagt 8280
acatcttttt gtttcagttt tgtaaggcca ttcttagtgg tgagcttcag aacaagtga 8340
atgagatctt tttgtttcag tttgttagg ccagtttcat cggtgagctt cacaacaagt 8400
gacatcttct tttcagtttt gtaaggccat tttcancggt gagcttcggt acaatgtttt 8460
ccatgttgtc acaccatatt taaactaggt aattgtatat atagaat tttt atctctatga 8520
aactctacca tctcccataa gctctttcta tatctctgct ttaattgta tgtcatgtca 8580
ctatgtatga tgggtgatca tcgtatataa tgagtatgaa attccgcaa tcactagggg 8640
caggcctgca ggtcgacggc cgagtactgg caggatatat accgttgtaa tt 8692

```

<210> 14

<211> 500

<212> DNA

<213> Zea mays

<220>

<221> misc_feature

<222> (127)..(127)

<223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (131)..(131)
 <223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (156)..(156)
 <223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (193)..(193)
 <223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (289)..(289)
 <223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (463)..(463)
 <223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (486)..(486)
 <223> n=any nucleotide

<400> 14
 ggcggaattt catactcatt atatacgatg atacaccatc atacatagtg acatgacata 60
 caattaaaag cagagatata gaaagagctt atgggagatg gtagagtffc atagagataa 120
 aattcintat ntacaattac ctagtittaaa tatggngtga caacatggaa aacattgtac 180
 cgaagctcac cgntgaaaat ggccttaca aactgaaaag aagatgtcac ttgttgtgaa 240
 gctcaccgat gaaactggcc taacaaaact gaaacaaaaa gatctcatnt cacttgttct 300
 gaagctcacc actaagaatg accttacaaa actgaaacaa aaaagatgtc cttgttctaa 360
 agctcaccac tgagaaaggc cttacaaaac taaaacaaaa aaaatttgtc acatgtcttg 420
 aagctcacca ctgagaatgg cttacaaaaa ctgaacaaaa atntgtcatt tggtttagct 480
 ttgtcncctct actttaagga 500

<210> 15
 <211> 604
 <212> DNA
 <213> Zea mays

<400> 15

tgaataagat aaatgggtcaa agtttttttaa aaaaatcaaa catgtcatat atctgtgaac 60
 ggaggttgta ttacagaatg tgcgacgtac acgctaccca ataaaataca acaaacattt 120
 ggtactggaa ttttgctctt tgcgcataga atccaataca taaaataagt ataggcagcg 180
 aaccaaacac gtcccaagtt ttataatttg taaagaaaat gacagcattt aaatatgata 240
 acacaataat taaccagcgg gtaagggtag ttttcgttga gcactgttgc ggtttagaat 300
 cgctggacct gcgtgtttat gagacacagc gggtagcagt tggaagagat gattgggcta 360
 gctagcttga gcgattcagt catcaacccc aatattgttc cattgctgca tgcacattta 420
 tctataccac gacgacacaa cgtgaacctc gtgcagcttt taaaataca gccagttgtg 480
 atccatctac ctgtctgtca gacgtgtac agcctacagt ttagtgactg ctgcctataa 540
 aatggctggc tgctggagca aagccaaacc aatcagatag agagcatagt cgatccatgg 600
 catg 604

<210> 16
 <211> 25
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK22
 <400> 16
 gctgtgtgag agtagtagtg gcttc 25

<210> 17
 <211> 24
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK23
 <400> 17
 cacaagcgtg gctgacagca tcgt 24

<210> 18
 <211> 26
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK24
 <400> 18
 gctcacgaga ggcagcgcgc gtcgtc 26

<210> 19
 <211> 21
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK25

<400> 19
 gtaaaagttg tggcttcccg g 21

<210> 20
 <211> 25
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK26

<400> 20
 ccgcgctgtg cccgacagct taaac 25

<210> 21
 <211> 27
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK31

<400> 21
 gggttggatc ggc caatca cctcttc 27

<210> 22
 <211> 24
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK32

<400> 22
 ccgctcgglg tcatcaagac agag 24

<210> 23
 <211> 26
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK33

<400> 23
 gctcaaggaa aacaacccat acccgc 26

<210> 24
 <211> 24
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK38

<400> 24
 ggcgccagtc cgggcaacaa atac 24

<210> 25
 <211> 25
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK39

<400> 25
 gggctctggc cccctatat acaac 25

<210> 26
 <211> 27
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer GVK45

<400> 26
 cgggataccg gctttctgca ctggacg 27

<210> 27
 <211> 15
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer MDB285
 <220>
 <221> misc_feature
 <222> (1)..(1)
 <223> n=any nucleotide

<400> 27
 ntcgastwts gwggtt 15

<210> 28
 <211> 16
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer MDB286
 <220>
 <221> misc_feature
 <222> (1)..(1)
 <223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (11)..(11)
 <223> n=any nucleotide

<400> 28
 ngtcgaswga nawgaa

16

<210> 29
 <211> 16
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer MDB363
 <220>
 <221> misc_feature
 <222> (5)..(5)
 <223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (10)..(10)
 <223> n=any nucleotide

<400> 29
 sggntgawn taawac

16

<210> 30
 <211> 15
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer MDB364
 <220>
 <221> misc_feature
 <222> (5)..(5)
 <223> n=any nucleotide

<400> 30
 sscgnaawtt catwc

15

<210> 31
 <211> 15
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer MDB552

<220>
 <221> misc_feature
 <222> (1)..(1)
 <223> n=any nucleotide

<400> 31
 ngtcsgaw scatt

15

<210> 32
 <211> 16
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer MDB556

<220>
 <221> misc_feature
 <222> (2)..(2)
 <223> n=any nucleotide

<220>
 <221> misc_feature
 <222> (6)..(6)
 <223> n=any nucleotide

<400> 32
 cngasnagwt wgcata

16